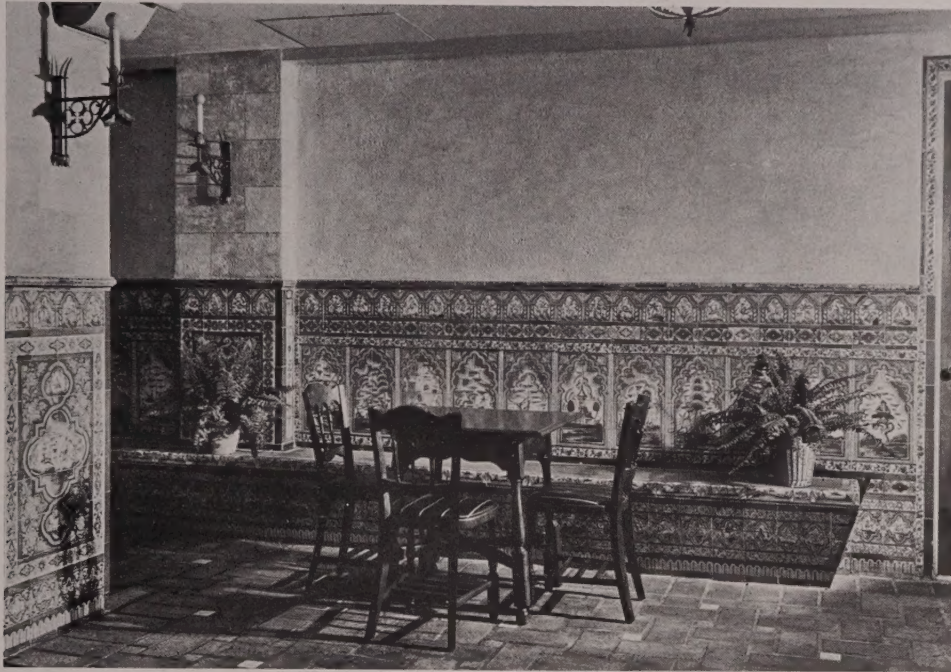


ARCHITECTURE

❖ VOLUME LXVI

OCTOBER 1932

NUMBER 4 ❖



Dado, bench, and door trim of tile in the cafeteria of the West Side Y. M. C. A., New York City. Dwight James Baum, architect; tile by Lafitte, of Seville

Today's Craftsmanship in Tile

By Eugene Clute

CURIOSLY enough, an art of royal antecedents, that of tile-making, having adorned the palace of an Egyptian Pharaoh thirteen centuries before the Christian Era and having played a noble part in the architecture of temples, mosques, and palaces down through the ages, came to be regarded, in our country during the past fifty years, almost exclusively as a means merely of achieving white tile cleanliness. And this attitude was shared by architects who should have known better through acquaintance with the beautiful tile work of Persia and the old Spanish and Italian faience.

Now, however, with the encouragement of architects who appreciate the possibilities of the material, the tile industry in this country is shaking off its recent bathroom traditions and getting rid of its mechanical-perfection complex.

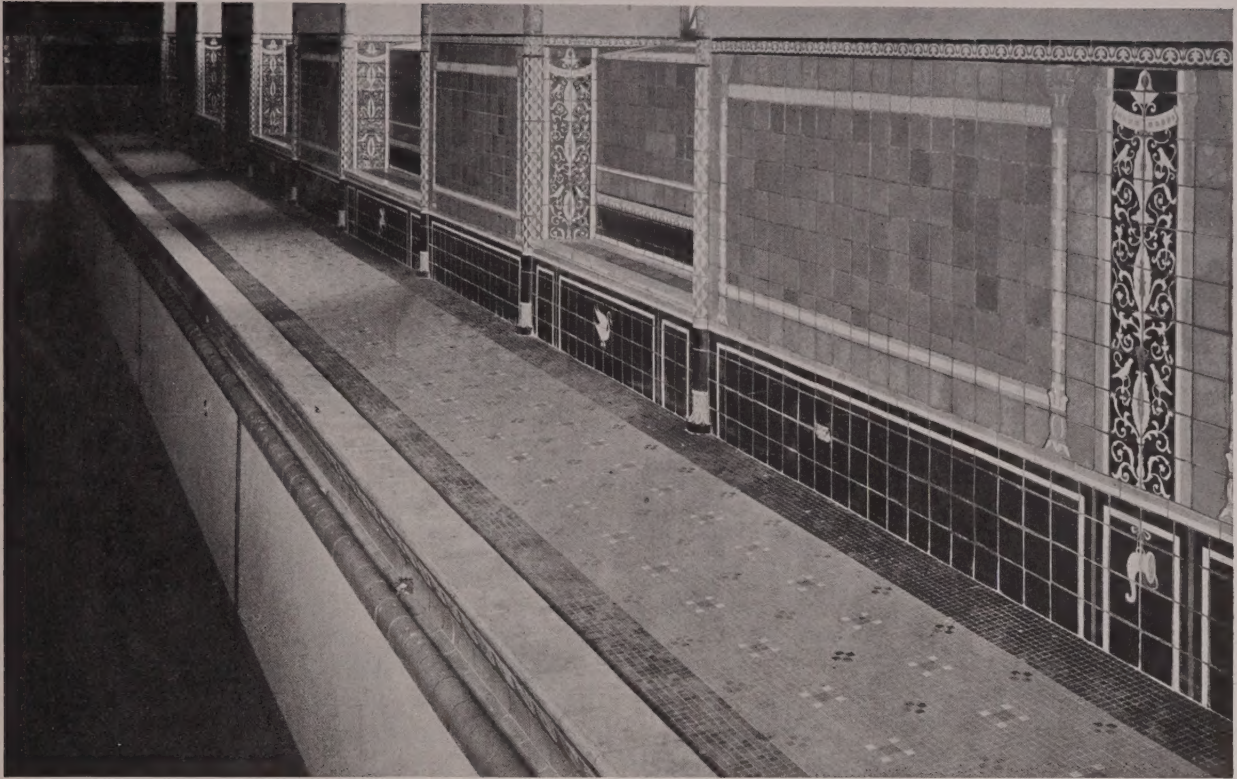
Once more, tile is taking its rightful place in the architecture of the finest buildings. Through the manipulation of clay, glazes, and fire, effects of great beauty are being produced by American craftsmen in this field. Excellent use of these products is being made by architects and fine tiles are also being brought from the European factories, notably from those of Spain and Holland.

One of the most interesting developments has been the production of a new type of floor tile that is rich in effect, with the soft rose tint of old charcoal-burned tile, but capable of withstanding the hardest usage. The first tiles of this kind were made recently for the floors of the principal rooms of the new West Side Y. M. C. A. on 63d Street, New York City, at the instance of the architect of the building, Dwight James Baum, and under his direction. They are of clay



Dado and wall panel in one of the swimming-pools of the West Side Y. M. C. A., the tile of which was made from Dwight James Baum's designs by Lafitte, of Seville

◀ ARCHITECTURE ▶



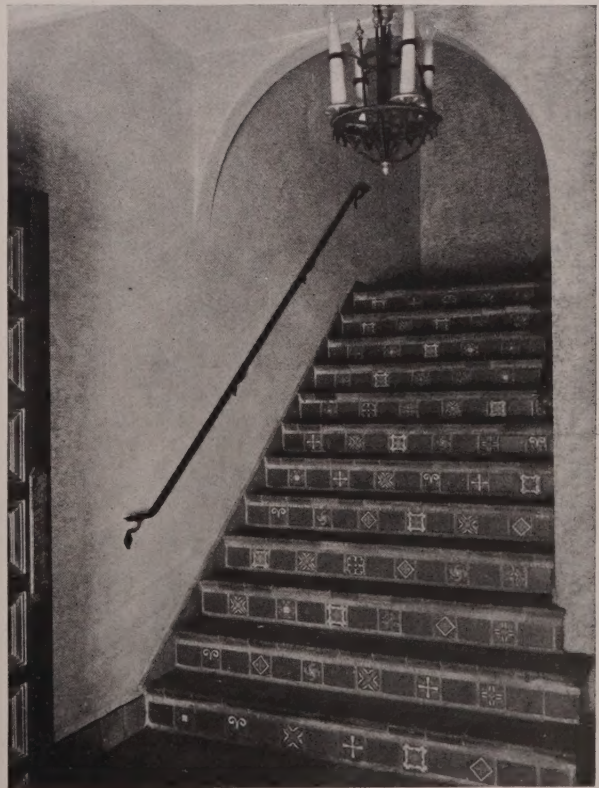
Pompeiiian swimming-pool in the West Side Y. M. C. A., where Mr. Baum has worked out, in collaboration with the Cambridge-Wheatley Company, a scheme in cloisonné tiles of red, black, yellow, and blue

of special composition, hard-burned and unglazed. The color variation ranges from deep tan through rich browns to a very dark brown, almost black, and always there is the undertone of soft old rose. They are filled with raw linseed oil, which is absorbed and hardens in the pores; then they are waxed. Usually they are employed with inserts of smaller semi-glazed tiles in plain colors.

These floor tiles represent only a small part of the interesting tile work in this particular building. When the question of interior treatment came up it was decided to use plaster and tile, following early Italian precedent in the use of tile floors, tile bases, and tile about the window and door openings. This method of treatment characterizes the principal rooms.

Of special interest, as examples of the use of tile in this building, are the two swimming-pools, the one Pompeiiian in treatment and the other Hispano-Moresque; and the cafeteria, which is Spanish. Details of these are here illustrated.

Another notable example of the use of tile is the residence of Anthony Campagna, at Riverdale, N. Y., of which Dwight James Baum is also the architect. This house is in the manner



A basement stairway in the West Side Y. M. C. A. Dwight James Baum, architect; tiles by the Cambridge-Wheatley Company; installation craftsmanship by William H. Jackson Company



In the residence of Anthony Campagna, Riverdale, N. Y.; Dwight James Baum, architect. Tiles made by Cambridge-Wheatley Company, installed by Jackson

of an Italian villa of the fifteenth century, and it embraces a private theatre which is surrounded by vaulted passages paved with tile. A tile-paved grotto leads from the theatre to the gardens, and upon the top of the orangery is a pavement of tiles. In a connecting building is a glass-enclosed swimming-pool.

Throughout the house the bathrooms are in tile of soft coloring with plain fixtures in colors to match. One of the principal bathrooms is especially fine; the dado is in pale lavender tile and the walls above it have painted decorations with motives from under-sea life—the coral, sea

Pictorial-tile panel in the entrance to the Heckscher Foundation for Children, New York City. Maynicke & Franke, architects. Tile by Pardee-Mattawan Co.

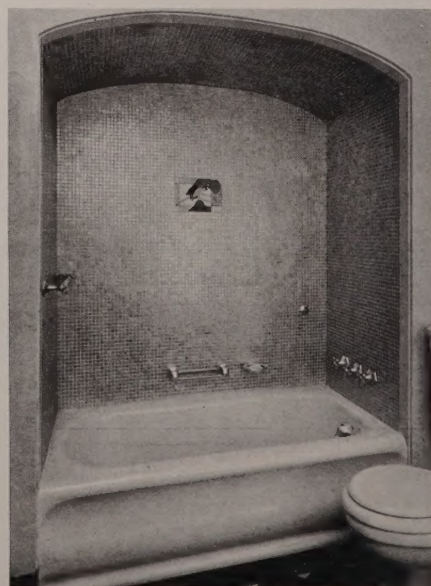


anemone, and the like, all in soft shades of pink and lavender and green that harmonize with the lavender tile. The decoration of this bathroom represents a type of treatment that is especially good, namely wall decoration, in some other material used above a tiled lower wall. This gives the requisite life and interest to the room, while retaining the advantages of tile where it is best fitted to serve. In less costly residences and in modest homes and apartments, a glazed wall paper in one of the excellent designs that can now be had will serve admirably upon the upper wall; not necessarily in an under-sea design and not in a tile pattern, of course.

There have always been some architects who have known the value of tile and how to use it; therefore, there are isolated examples to be found in the work of the past decades that are excellent. Among them is the series of panels with pictorial representations of child-life in the entrance to the Heckscher Foundation on Fifth Avenue at 105th Street, New York City. These are of the *opus sectile* type, that is, the sections of tile are so shaped that the joints follow the outlines of the design in most instances and do not break up the design.

Still older, by perhaps a score of years, are the admirable patterned floors of marble and tile in the Cathedral of St. John the Divine, portions of which are shown by the accompanying photographs. Marble and tile combine especially well where great beauty and richness are required, and such treatments as these lend to buildings of monumental scale the richness and warmth they often require, serving with suitable dignity

A bathroom in the Campagna house with gold mosaic walls and color insets. Tile by American Encaustic Tiling Co.; installation by Jackson



in the same way that a rich oriental carpet serves in a living-room.

The use of tile in ecclesiastical architecture includes representations of subjects of religious significance which can be made to special design. Of such character is the remarkable series of the fourteen Stations of the Cross, produced at the Royal Delft Works in Holland. These Stations have the permanence, richness of coloring, and architectural character of fine ceramics, with the delicacy and accuracy of detail of oil paintings.

In passing, it is interesting to note the renewed development of ceramic art at Delft as a result of the efforts of the late Joost Thooft, a graduate of the Technical University of Delft, assisted by Adolf LeComte, professor of decorative design at that institution, and later through the work of M. Labouchere, who was to become head of the organization. At the beginning of the present century M. Mauser, the managing director, introduced and made commercially possible for wall tiles the wonderful crystallized glazes of rich and beautiful coloring for which Royal Delft is now known.

As the methods of production largely control the design and the texture, and determine the decorative effect in tile, it may not be amiss to outline these processes very briefly here. As a rule, the smooth, perfectly regular tiles are "dust pressed"; that is, they are formed from clay in a dry state which is placed in steel moulds and consolidated under great pressure. The resulting "bisque" or "biscuit," as the body of the tile is called, is then placed upon a belt-conveyor, face downward, and passes over rollers



The Campagna house swimming-pool where Mr. Baum has blended blue and white Cambridge-Wheatley tile for the tank itself. Installation by Jackson

that apply the glazing substance. (Sometimes glaze is sprayed on.) The tiles are then fired and sorted for size, imperfect tiles being rejected.

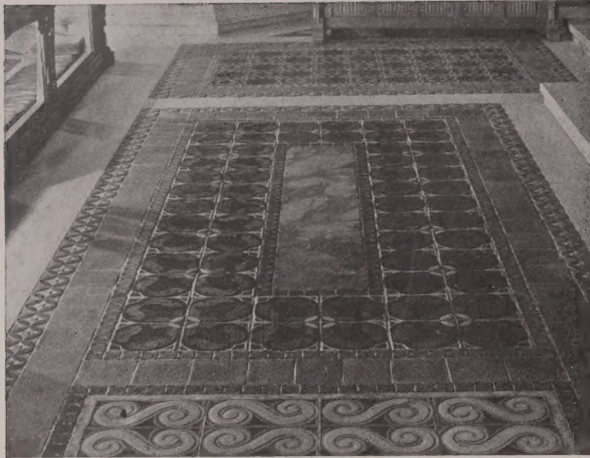
Cloisonné tiles are those which have a pattern of depressions in the surface. The ridges or walls between these depressions prevent the different colored glazes from flowing together while in a fused state. Cloisonné tiles are "dust-pressed" as a rule. Another type is the "wet-pressed" "plastic" or faience tile. Tiles of this type are formed of moist or wet clay in a plastic



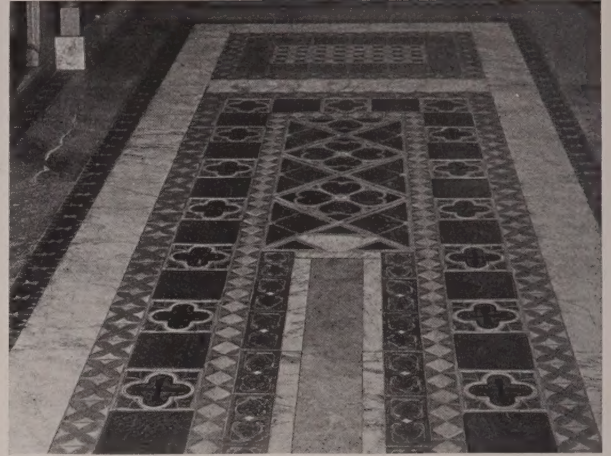
A Campagna bathroom: a dado of pale lavender tile with painted decorations. Tile by American Encaustic; installation by Jackson

Pictorial tile panel in the entrance to the Heckscher Foundation for Children, New York City. Maynicke & Franke, architects. Tile by Pardee-Mattawan Co.





Tile and marble combined in the chancel floor of the Cathedral of St. John the Divine, New York City.



Heins & La Farge, architects; tile craftsmanship by Grueby (now Pardee-Mattawan Company)

© The C. Pardee Works, Inc.

One of a series of the fourteen Stations of the Cross. The panels are twenty-seven inches



high, and were made at the Royal Delft Works in Holland from the designs of L. Serf



state, which is either pressed into a steel mould or into a plaster mould; this type includes the hand-made tiles. They are glazed by dipping each one separately by hand in a bowl of glazing substance. The glaze is then allowed to dry and as it dries it cracks, like the surface of a muddy road in the sunshine. They are then fired in a kiln. Usually the firing causes the cracks to disappear, but often the traces of them are retained for their decorative effect through control in the firing. Such irregular lines in the glaze are known as "water marks." By simply setting the tile in the kiln so that it slants a little to one side or one corner, the molten glaze may

be caused to flow to the lower portion, which will have a deeper color. By interrupting the firing at the right moment and by other manipulation, various beautiful irregularities of coloring and texture can be produced. Many of the effects are due, however, to the compositions of the glaze. For instance, crystallized effects are produced by glazes that contain substances which crystallize quickly while the glaze is in a molten state. The colors are produced by substances that seldom give to the layman any idea of the beautiful colors they will assume under the action of fire. It is a fascinating, colorful art-craft, tile-making.

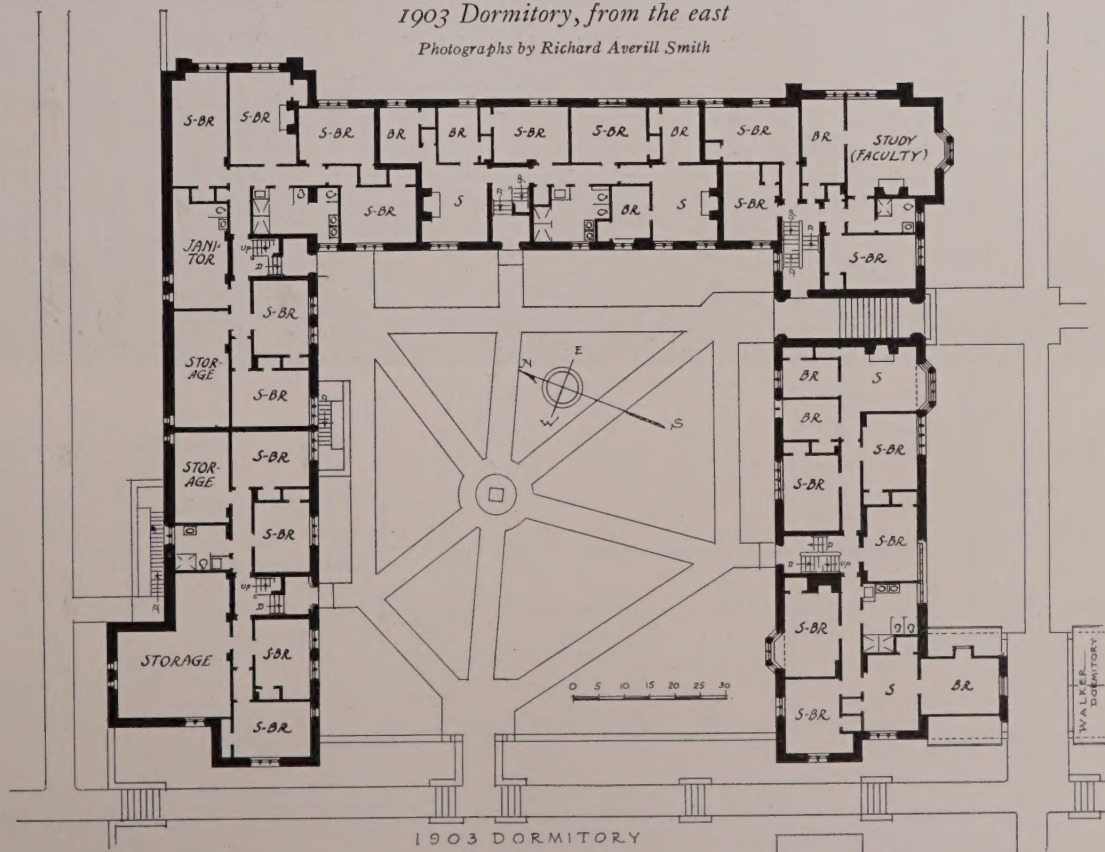
Recent Buildings at Princeton University

CHARLES Z. KLAUDER, ARCHITECT



1903 Dormitory, from the east

Photographs by Richard Averill Smith



1903 DORMITORY
First Floor Plan



*Within the court of 1903
Dormitory, from the west*



The H. B. Fine Hall of Mathematics, from the west



THE H. B. FINE HALL OF MATHEMATICS
First Floor Plan

◀ ARCHITECTURE ▶



*Detail of main entrance,
H. B. Fine Hall of Mathematics*



◀ ARCHITECTURE ▶

Detail of south side of H. B. Fine Hall of Mathematics, showing one of the re-entrant bays



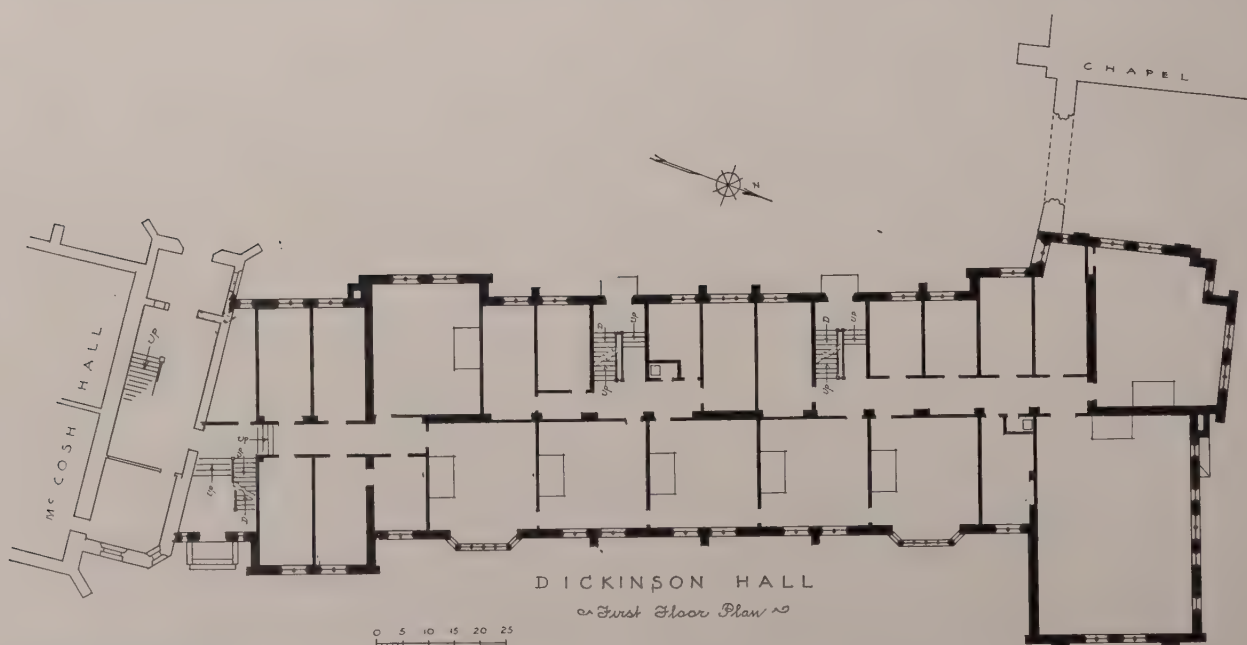
*Walker Dormitory, from the South.
1903 Dormitory adjoins it just beyond
the steps at the extreme left*







Dickinson Hall, from the north. At the top of the steps to the right the wall with its two arches joins Dickinson to the Chapel. This wall was designed by Cram & Ferguson





◀ ARCHITECTURE ▶

A vista of Dickinson through the wall connecting Mr. Klauder's work with the Chapel. This wall is the work of Cram & Ferguson

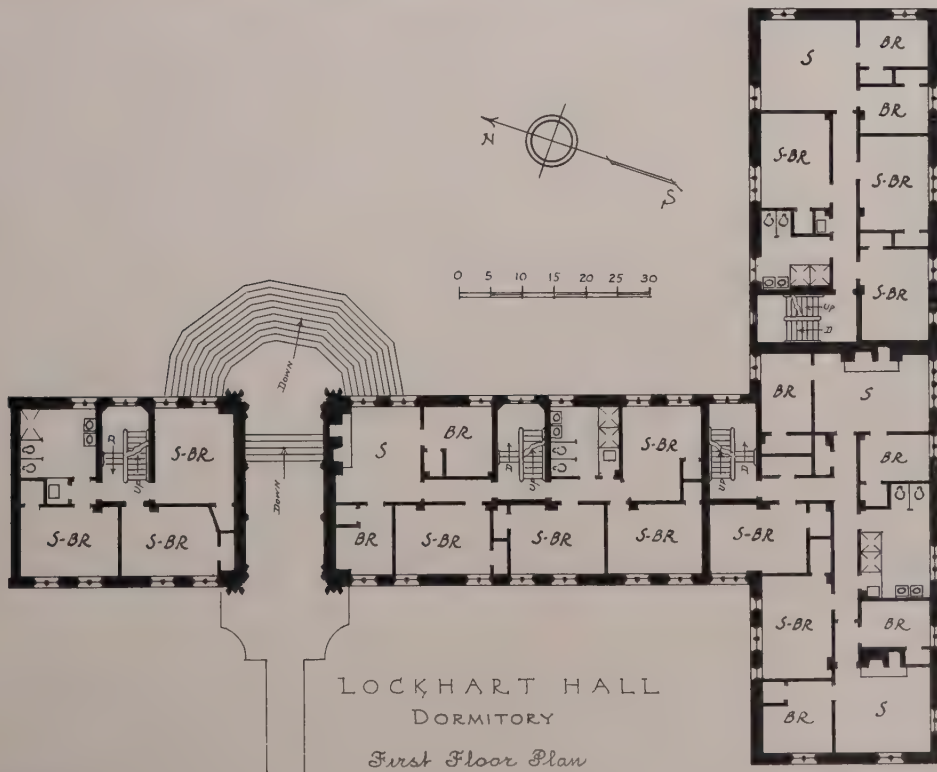


Dickinson Hall





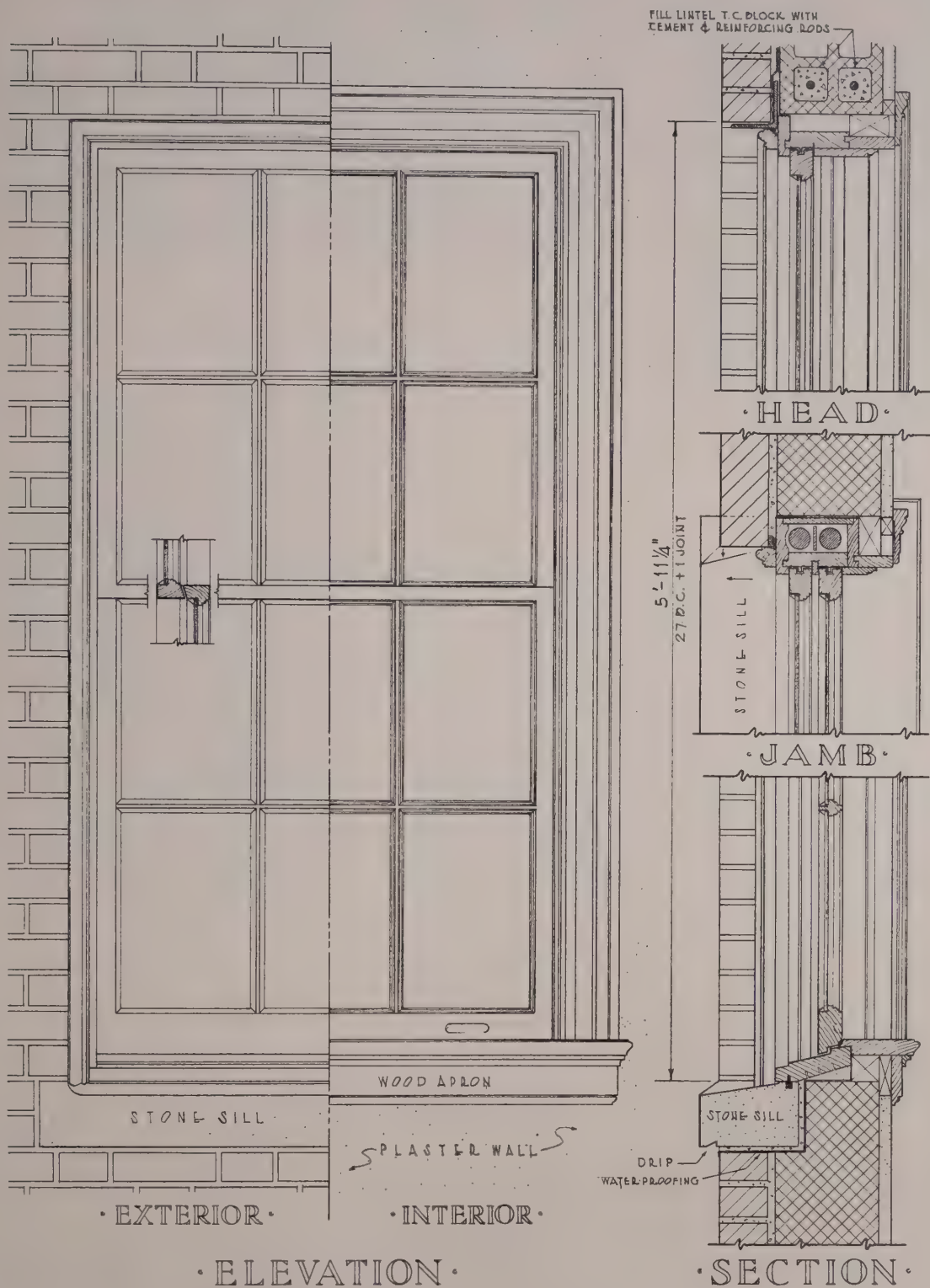
Lockhart Hall Dormitory, from the northeast





The passage through Lockhart Hall, as seen from the southwest

◀ ARCHITECTURE ▶

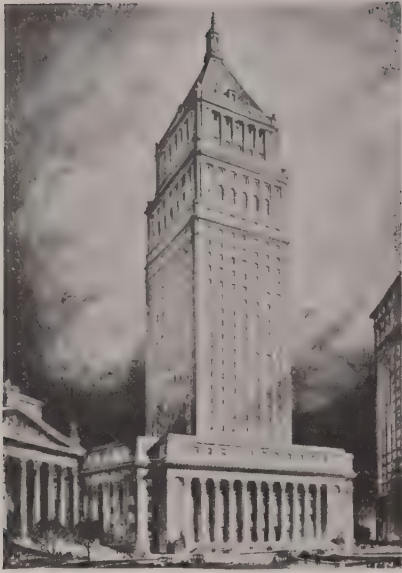


· DOUBLE-HUNG · WINDOW · IN · BRICK & HOLLOW · TILE · WALL ·

A SERIES OF WORKING DRAWINGS BY JACK G. STEWART

· SCALE : 1" = 1'-0" ·

· PLATE · N^o 29 ·



The new United States Courthouse for the City of New York, which Cass Gilbert has designed for a site near the Municipal Building



Detail of mausoleum in the New Military Cemetery of Riga. Developed by the Republic of Latvia with plans and supervision by Herr Zale, sculptor

Architectural News



The baby incubator station designed for the Chicago Century of Progress exposition by Schmidt, Garden & Erikson, architects



Charles Keck's new bronze of Lincoln, presented to Wabash, Ind., by the late Alexander New



Bell tower of the recently completed Lincoln-Liberty Building, Philadelphia, housing John Wanamaker's Men's Store. John T. Windrim, architect

The new Bryan Memorial Town Hall at Washington, Conn. Cameron Clark, architect





One of four murals, each symbolizing one of the seasons, painted by M. Guillonnet for the Wanamaker Men's Store in Philadelphia

in Photographs



A water reservoir tower for Washburn Park, Minneapolis, Minn. Harry W. Jones, architect

The Federal and States Building for Chicago's Century of Progress exposition. Edward H. Bennett, architect



A glimpse of the Washington, D. C., Cathedral in the building—Frohman, Robb & Little, architects—as caught from the Bishop's garden



Proposed Edgewater co-operative housing for Chicago—eighteen two-story garden homes in the group. Albert D. Levy, architect



The A. T. and T. Company's Long Distance Building on Sixth Avenue, New York City—an old building enlarged. Voorhees, Gmelin & Walker, architects

BOOK REVIEWS

COLOUR IN INTERIOR DECORATION. By JOHN M. HOLMES. Foreword by L. H. BUCKNELL. 91 pages, 8¾ by 12¼ inches. Illustrations all in color from drawings, paintings, and color charts. Printed in Great Britain. New York: 1932: Charles Scribner's Sons. \$7.50.

Most discussions of color in its practical use lean upon the basic discovery by Sir Isaac Newton that white light may be separated into its constituent elements by being passed through a prism. The practical difficulty is that color in light and color in pigment form are widely different and should be clearly distinguished. The author's practical working hypothesis is based upon a pigmentary standard—and every one of the twelve primary pigments is available in a tube. The book simplifies amazingly the possibility of using color intelligently and with assurance.

PROPERTIES OF WESTERN LARCH AND THEIR RELATION TO USES OF THE WOOD. By R. P. A. JOHNSON and M. I. BRADNER. 93 pages, 5¾ by 9 inches. Illustrations from photographs and graphs. Technical Bulletin No. 285. Pamphlet binding. Washington: 1932: U. S. Department of Agriculture. 35 cents.

FIVE VOLUMES ON THE PRESIDENT'S CONFERENCE

PLANNING FOR RESIDENTIAL DISTRICTS. Reports of the Committees on City Planning and Zoning, FREDERIC A. DELANO; Subdivision Layout, HARLAND BARTHOLOMEW; Utilities for Houses, MORRIS KNOWLES; Landscape Planning and Planting, JOSEPHINE P. MORGAN. 227 pages, 6 by 9 inches. Illustrations from photographs and plans. Washington: 1932: The President's Conference on Home Building and Home Ownership. \$1.15.

HOME FINANCE AND TAXATION. Reports of the Committees on Finance, FREDERICK H. ECKER; Taxation, THOMAS S. ADAMS. 278 pages, 6 by 9 inches. Illustrations from graphs. Washington: 1932: The President's Conference on Home Building and Home Ownership. \$1.15.

SLUMS, LARGE-SCALE HOUSING AND DE-CENTRALIZATION. Reports of the Committees on Blighted Areas and Slums, ABRAM GARFIELD; Large-Scale Operations, ALFRED K. STERN; Business and Housing, HARRY A. WHEELER; Industrial Decentralization and Housing, STUART W. CRAMER. 245 pages, 6 by 9 inches. Illustrations from photographs and drawings. Washington: 1932: The President's Conference on Home Building and Home Ownership. \$1.15.

HOUSEHOLD MANAGEMENT AND KITCHENS. Reports of the Committees on Household Management, EFFIE I. RAITT; Kitchens and Other Work Centers, ABBY L. MARLATT. 228 pages, 6 by 9 inches. Illustrations from photographs and line-drawings. Washington: 1932: The President's Conference on Home Building and Home Ownership. \$1.15.

HOUSE DESIGN, CONSTRUCTION AND EQUIPMENT. Reports of the Committees on Design, WILLIAM STANLEY PARKER; Construction, ALBERT P. GREENSFELDER; Fundamental Equipment, COLLINS P. BLISS. 325 pages, 6 by 9 inches. Illustrations from photographs and plans. Washington: 1932: The President's Conference on Home Building and Home Ownership. \$1.15.

Here are the first fruits in permanent record form of The President's Conference on Home Building and Home Ownership held in Washington last December. Every one present at that conference must have been amazed at the fund of information brought together as a result of the various committees' efforts. That fund of information is now partly in printed form, other volumes being still in preparation. The volumes now available and in preparation, all edited by John M. Gries and James Ford, form a record of experiences and deductions upon which our future domestic building must necessarily be based. President Hoover has said: "The next great lift in elevating the living conditions of the American family must come from a concerted and nationwide movement to provide new and better homes." Here are the documents forming the programme for this movement.

TESTS OF INTEGRAL AND SURFACE WATER-PROOFINGS FOR CONCRETE. By C. H. JUMPER. 31 pages, 6 by 9 inches. Illustrations from diagrams. Research Paper No. 394. Reprint from Bureau of Standards Journal of Research Vol. 7, December, 1931. Washington: 1932: U. S. Department of Commerce. 10 cents.

HITLER. By EMIL LENGYEL. 256 pages, 5½ by 8 inches. Illustrations from photographs. New York: 1932: Lincoln MacVeagh—The Dial Press, Inc. \$3.

A biography of the man who, unable to study art as he wished, became a builder's helper, then an architectural draftsman, and finally a power in world politics.

TESTS OF JOINTS IN WIDE PLATES. A report of an investigation. By WILBUR M. WILSON, JAMES MATHER and CHARLES O. HARRIS. 74 pages, 6 by 9 inches. Illustrations from photographs, drawings, and graphs. Bulletin No. 239. Urbana: 1932: University of Illinois. 40 cents.

THE DRAMA OF BUILDING: III

A SERIES OF PHOTOGRAPHIC STUDIES BY JEANNETTE GRIFFITH WHICH
MAY HELP US TO APPRECIATE THE STIRRING MAGNIFICENCE OF OUR
OWN CONTRIBUTION TO THE HISTORY OF BUILDING



Jeannette Griffith

FORMS OF STEEL FOR WALLS OF CONCRETE



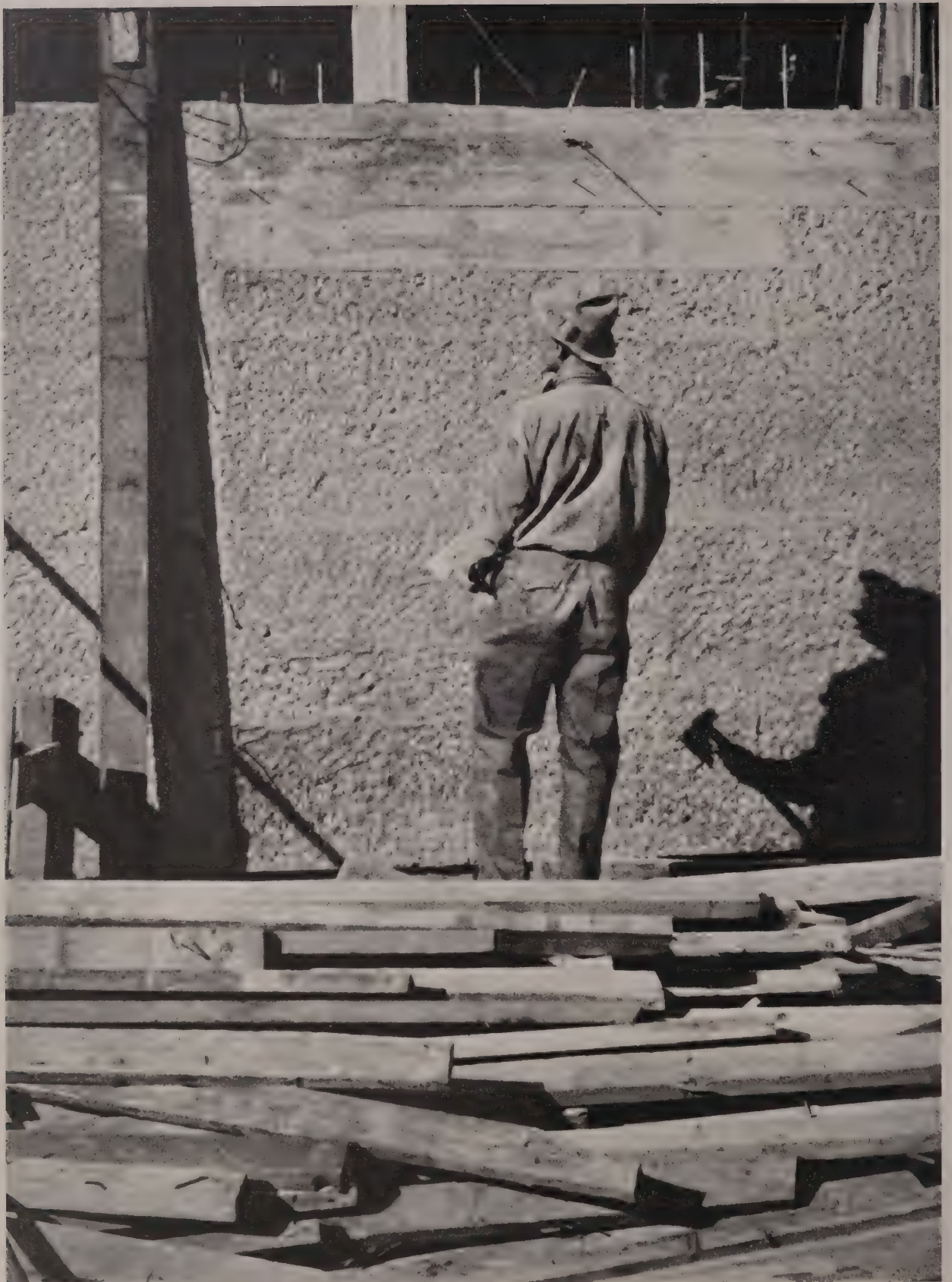
THE STREAM OF CONCRETE
Jeannette Griffith

◀ ARCHITECTURE ▶



REMOVAL OF THE FORMS
Jeannette Griffith

« ARCHITECTURE »



SURFACING THE CONCRETE WALL FOR ITS FINISH
Jeannette Griffith

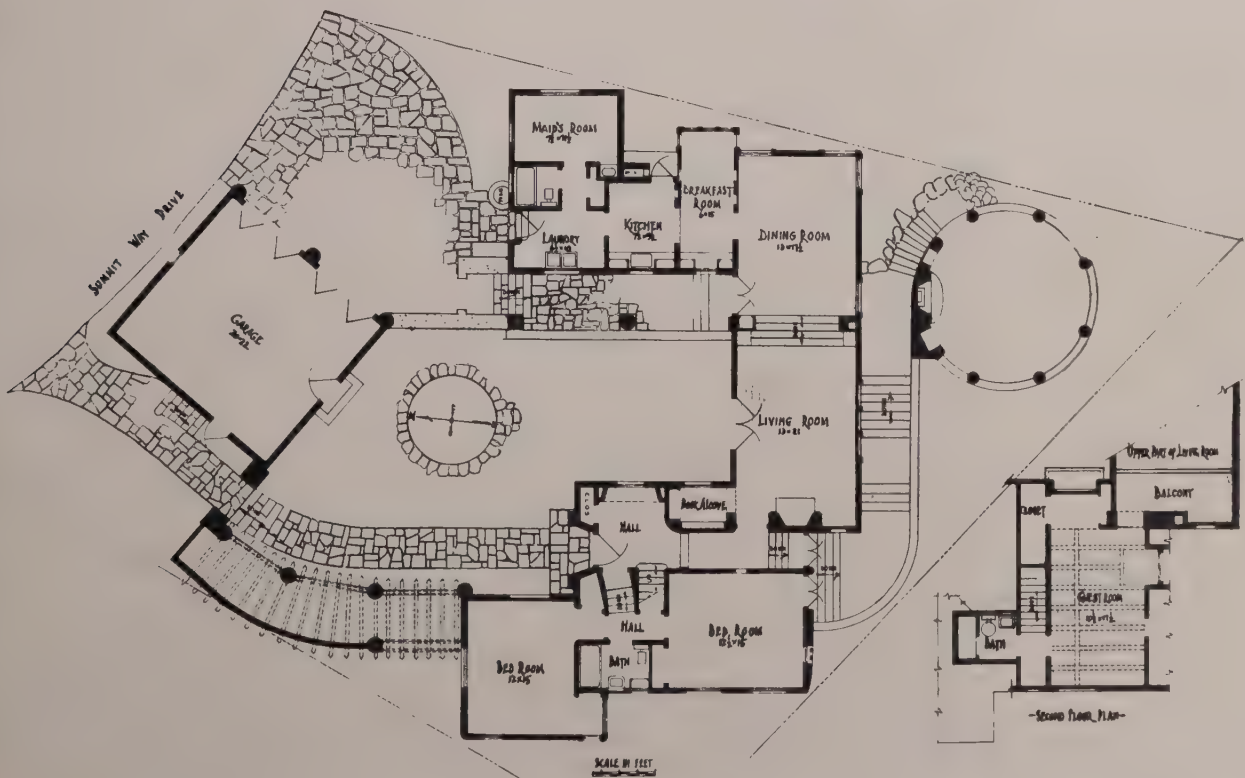
« ARCHITECTURE »



Photograph by Miles Berne

The house is built on the top of Lookout Mountain, overlooking Los Angeles, Beverly Hills, and the Pacific Ocean

HOUSE OF EDWARD A. BAILEY, LOS ANGELES, CALIF.
ROY SELDON PRICE, ARCHITECT





Photograph by Miles Berne

*The house as seen from the public road. The garage
● is at the right and the arched entrance to the laundry
at left centre*

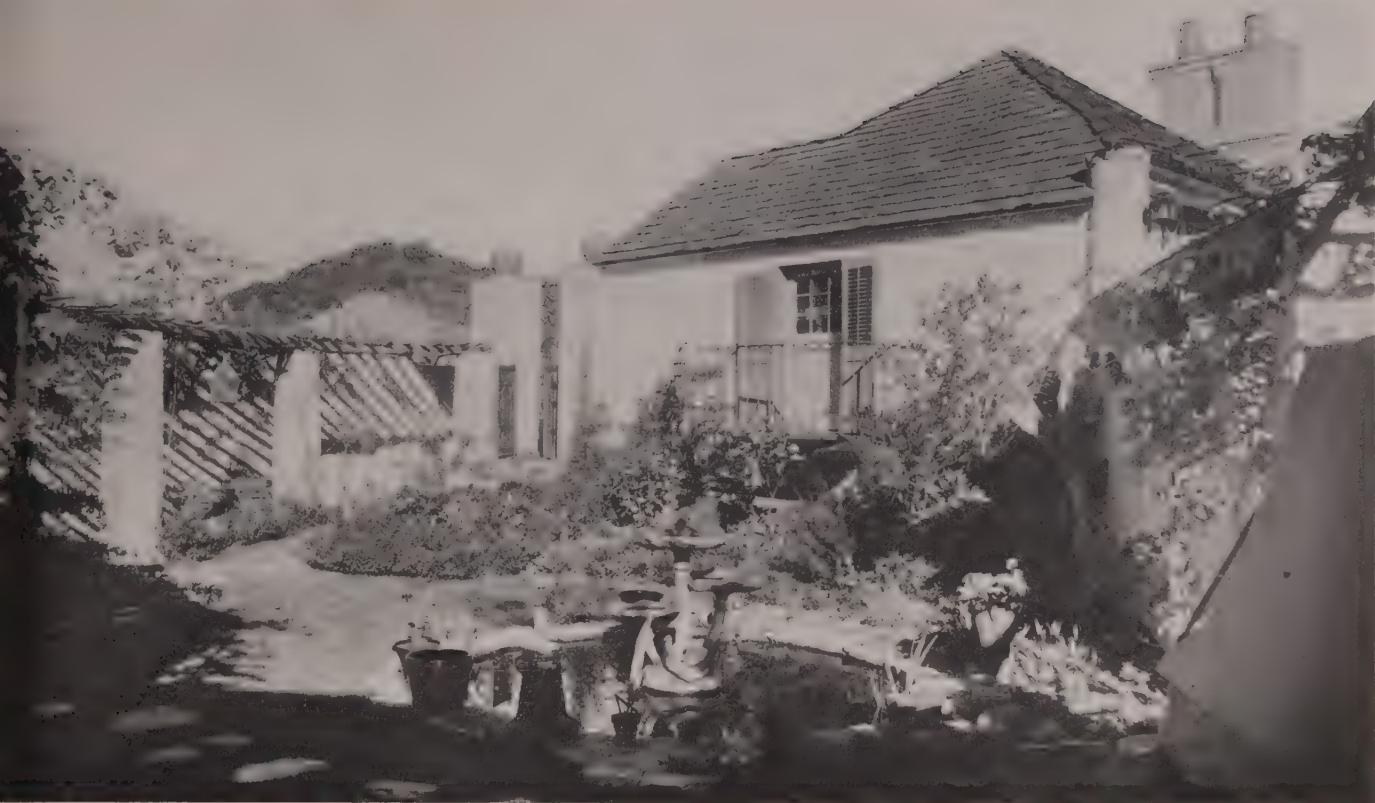
*The entrance gate to the garden as seen from the road.
At left, the stairs lead to a garage balcony*

*Photograph by Alberi
E. Cawood*



HOUSE OF
EDWARD A.
BAILEY,
LOS ANGELES,
CALIF.
ROY SELDON
PRICE, ARCHITECT

« ARCHITECTURE »



Photograph by Miles Berne

Main entrance from the garden. At the left may be seen, through the doors, the large living-room windows, commanding the view

The garage closes one end of the garden, helping to shelter it from the sea wind and the public road



Photograph by Albert E. Cawood

HOUSE OF
EDWARD A.
BAILEY,
LOS ANGELES,
CALIF.

ROY SELDON
PRICE, ARCHITECT



Photograph by Albert E. Carwood

*The fireplace end of the living-room, as seen from the
upper level of the dining-room*

HOUSE OF EDWARD A. BAILEY, LOS ANGELES, CALIF.
ROY SELDON PRICE, ARCHITECT

◀ ARCHITECTURE ▶



HOUSE OF RANDOLPH P. COMPTON, SCARSDALE, N. Y.

ELECTUS D. LITCHFIELD, ARCHITECT

RUTH DEAN, LANDSCAPE ARCHITECT

DEAD POEM





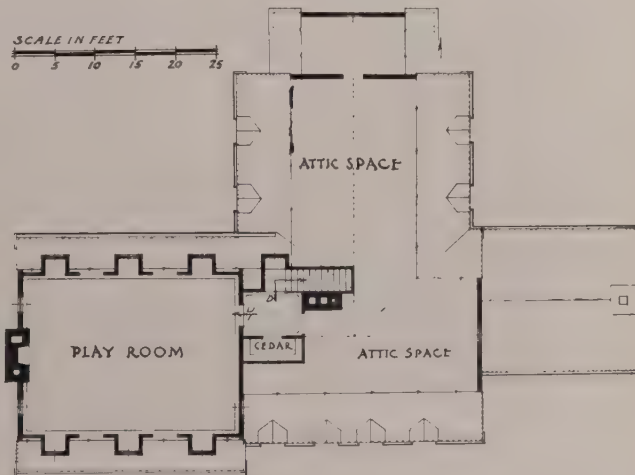
Kitchen wing and garage. In his combination of whitewashed stone, shingles, and clapboards Mr. Litchfield has secured the character of early construction to which additions have been made from time to time

HOUSE OF RANDOLPH P. COMPTON, SCARSDALE, N. Y. ELECTUS D. LITCHFIELD, ARCHITECT

Second-floor plan



Attic plan



◀ ARCHITECTURE ▶



End of north wing, with children's sleeping-porch

HOUSE OF RANDOLPH P. COMPTON, SCARSDALE, N. Y.
ELECTUS D. LITCHFIELD, ARCHITECT

◀ ARCHITECTURE ▶



The hall. Here the old block paper is printed in apricot shades, the woodwork a natural-finish pine

HOUSE OF RANDOLPH P. COMPTON, SCARSDALE, N. Y.

ELECTUS D. LITCHFIELD, ARCHITECT

◀ ARCHITECTURE ▶



In the living-room the wall paper has green foliage and orange flowers on a blue ground. Woodwork is natural-finish pine

HOUSE OF RANDOLPH P. COMPTON, SCARSDALE, N. Y. ELECTUS D. LITCHFIELD, ARCHITECT



Children's dining-room and breakfast room. The floor is of flagging, the trim and walls blue. The window shelves are for a collection of antique glass

◀ ARCHITECTURE ▶

Some Pitfalls in Supervision

By *W. F. Bartels*

XXIV. CALKING AND GLAZING

WHEN a building has been completed, it supposedly is protected against any entry of the elements. The most vulnerable lines of defense are under the sills and around window and door frames. And it is here that the thin light line of calking fails or succeeds in playing the rôle of heroic resistance.

Expert opinion lays the cause of over 80 per cent of air leakage to frames. Aside from this heat loss there is excusable exasperation when a driving rain turns the plaster surrounding the window or door into an unending series of batik designs. Where beads of water appear at the window head to drop and splash on costly draperies or floor, even a calloused superintendent will swear that never again will he overlook the importance of a first-class job of calking.

Calking compounds are generally made of a mineral base plus different oils in varying proportions. Asbestos fibre is often included. The particular usage and the means of application together determine the ingredients and their relative proportion.

Among other characteristics the compound must be elastic. It must develop an outer skin capable of taking paint without destroying the color of the latter. It must adhere perfectly under both heat and cold. It must not crack or cease adhering to any surface, although one may be of stone and the adjoining one steel. Neither must it crack or pull loose under vibration. And withal the material beneath the surface must remain plastic.

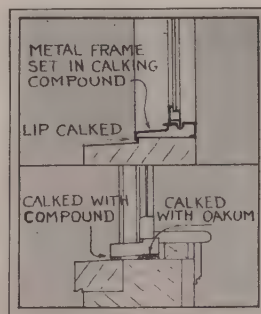
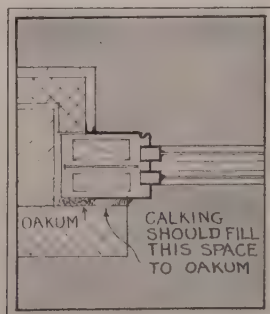
If time permits, it is a good idea to expose to the weather the proposed samples on the same kinds of material and under similar conditions which will be met later, in order to observe the effects of the elements on them. Any detachable portions of the window frame, such as staff beads (unless they are an inte-

gral part of the frame) should be removed so that the calking material can be forced between the frame and the abutting wall material. If stone or marble be used next to the

frame it would be worth while to find out if the particular calking material employed will stain them. Often it will be advisable to coat the adjoining surface with a colorless filler if it is found that the calking material will stain it.

Many of the metal windows of today have a small strip or fin which is supposed to fit against the wall and form a backing for the calking. In actual practice this fin often does not entirely perform its supposed function. In such cases the superintendent should see to it that the hollow space is tightly rammed with oakum.

Before applying the calking compound the joints should be well raked out; if there are any gaping holes these should be pointed up. Then if the joints are more than $\frac{1}{4}$ " wide and $\frac{3}{4}$ " deep, it is advisable to fill them first with a good grade of oakum solidly tamped. The oakum should be at least a half-inch back from the surface in order to allow space for the calking compound. The latter should be applied under pressure sufficient to force it tightly back against the oakum or the masonry. Often in their hurry to complete the job the workmen will pass the calking gun over the joint so quickly that only a thin coat is formed on the surface, leaving an air pocket behind. It is only natural that this negligible amount of calking will dry and pull away from the surfaces, thus leaving the joint behind exposed. After the calking is finished it should be neatly pointed up by employing a small tool dipped in water to prevent adhesion to the compound. This smoothing over also has the advantage of bringing to the surface some of the oil in the material, thus closing many of the minute pores.



The grading of glass, like that of lumber, is done according to the best judgment of the graders. There are, of course, certain rules by which to be governed, which will be discussed, but what should be appreciated at the outset is that there is no definite line of demarcation between various classifications. For instance, blisters (small oval bubbles) would not be tolerated in the *centre* of an "A" quality piece of glass, while they might be overlooked if occurring along the *edge*. The superintendent should be on the most familiar terms with the rules for grading glass, and then see that the material installed is what the owner is paying for. It is likely to make any owner decide that Prohibition days are over when, on looking through his windows for the first time, he sees his garden and his neighbors' houses wobbling in all directions.

A superintendent tells a story of a house he built in California. The house stood at the head of a turn in the electric railroad. No sooner had the owner moved in than the superintendent was summoned to the house. When he arrived the owner upbraided him for the poor glass. The superintendent tried to appease the owner, and had not entirely succeeded when they entered the living-room, which was on the axis of the tracks of the electric railroad. At that moment a train was coming up the track, and instead of rounding the turn as it should have, it appeared to head straight for the house. The superintendent quickly moved out of the train's apparent derailed path—not, however, without a comment on the sudden move by the owner. Needless to say, new glass was immediately furnished that owner, and the superintendent was forever after on the lookout for curved glass.

Good glass is an asset. Its sparkle and brilliance is noticeable to the layman, although his knowledge of its classification may be nil. Of course, heavier glass costs more than thin grades, but probably effects a saving toward the additional cost by the economy in heat, and fewer breakages from minor bumps. Then too, a thicker glass, by the nature of its manufacture, gives a greater degree of clearness and fewer distortions, not to overlook infinitely more "standing" to the job. A first-class glazing job costs such a slight amount more than an ordinary one that it would seem obvious that inferior material does not pay; yet unfortunately this often is not appreciated. Too often when



GLAZING

a zealous salesman submits a small sample of a lower grade of glass, it is substituted without the architect's realizing that the sample is small and flawless, and probably does not represent the larger sheets with their numerous blemishes. And the super-

intendent is invited to laugh off one more potential headache.

It should be realized that not all parts of a sheet of glass will have the same degree of perfection. To demand that edges have the same clear uniformity as the centre would be asking too much. Then, too, tilting almost any glass at a sharp angle with the eye will disclose the presence of waves. It is evident that without considerable experience a superintendent might overlook certain flaws, while others might be severely condemned. To provide an equitable method of testing, the U. S. Bureau of Standards says: "The glass should be examined when placed in a position similar to that of a glazed light, with the observer's eye on a level with the centre of the sheet and looking through the glass from a distance of about thirty-six inches, into the light and without any sun and without any close background."

Plate window glass comes in two grades: "second silvering" and "glazing quality." It should be appreciated that the larger the glass the more flaws there are likely to be in it, hence size is a governing factor in the grading. Specifications covering the allowable defects in each size may be obtained from the U. S. Bureau of Standards, Bulletin 164. However, the glass of reputable manufacturers will be found to be well within the limitations imposed on them, and all grades will have their classifications noted on small labels pasted on the glass.

Plate glass thickness runs from $\frac{1}{8}$ " to $1\frac{1}{2}$ ", although the standard generally thought of when plate glass is mentioned is $\frac{1}{4}$ ".

Regular window glass is supplied in two grades, "A" and "B," in which either single or double strength may be obtained. Inferior grades, such as fourth quality in both, and "C" in single, should not be allowed on the job by the superintendent. A glass especially free of defects and ranked above the others is known as "AA." This is not generally used commercially except for very special installations. The weights and thicknesses of these glasses may be obtained from the U. S. Bureau of Standards Bulletin.

(To be continued)



The Architectural Observer

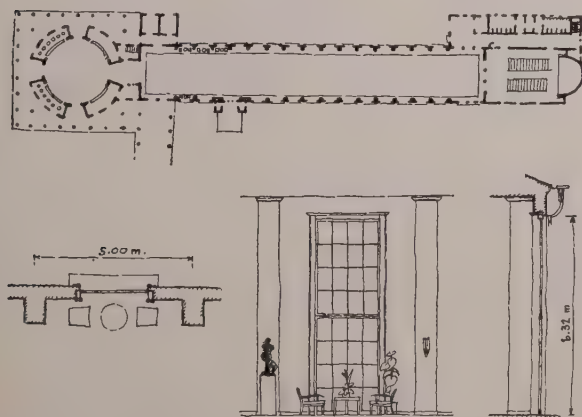


IT is curious how often one has to convict the architect of a lack of thought with regard to his steel casements. In the group windows so widely used today, the effect from without



is liable to resemble the proverbial hole in a blanket if the designer does not watch his color. A contrast with the dark void is absolutely essential if the mullions and muntins are to do any service whatever in articulation and scale.

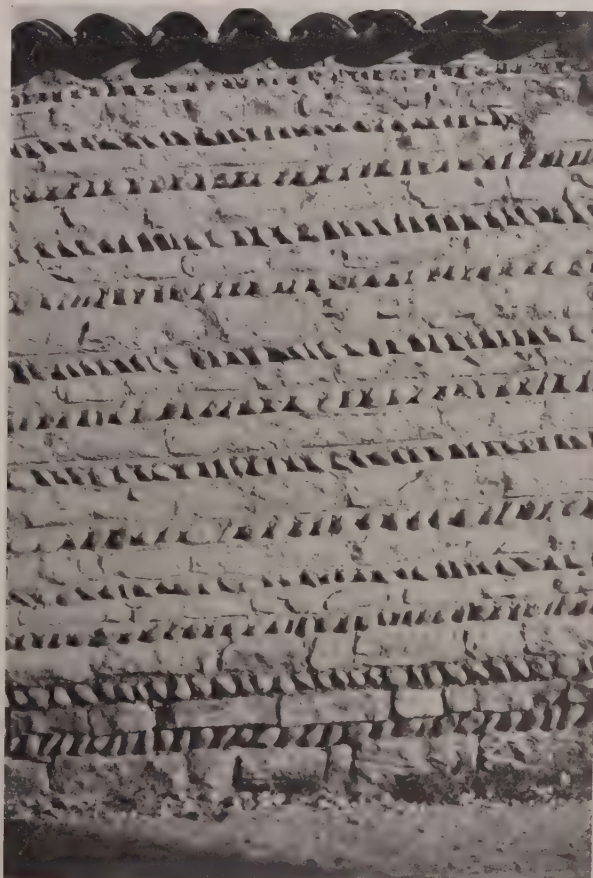
WE in America seem to prefer the huddle form of café and dance hall plan with a square or circular dance floor in the centre. A different solution is suggested by the Drink and Promenade Hall at Bad Tolz, which *Baukunst*



und *Stadtebau* shows as the work of Moll & Von der Velden, architects. The promenade hall is long and narrow, individual tables for two being placed in each bay with a scale relationship which is particularly effective. The base and window sash are very dark, the walls and ceilings light.

DER BAUMEISTER, of Munich, reports a new binder invented in Germany which has been used with very good results in cementing glass to wall or floor surfaces. Glass has obvious advantages in its hardness and resistance to acids, alkalies, weather, and hair cracks. Putties, screws, frames, and the like for holding it in place are not always satisfactory, and are expensive. Cement mortar, unfortunately, did not give a satisfactory result, due to the different coefficients of expansion. The new binder is known as Richtrol. It is merely mixed with water, and applied to the back of the glass, after which the slab is set in cement in the same manner as tile. Richtrol can be colored by means of mineral color.

IN the marshy region of the Bresse, north of Lyons, in France, it is not uncommon to find such walls as this one. What stone is found in the section is used for the enclosures, the domestic architecture being of brick, wood, and plaster. The herring-bone effect obtained with



these rolled pebbles is, so far as we know, local. The irregularity of the intervening stone courses, and the partial gradation in the sizes of the pebbles used, are suggestions worth noting.

ONCE upon a time there lived an architect whose imagination was not stirred by the idea of the hanging gardens of Babylon."

Any tale starting out like that would make for dubious reading. For from the embryonic student days onward every architect always



sketches foliage on every terrace, even though he has half a suspicion that it won't flourish particularly well. But the *idea* thrives, and keeps appearing whenever a vulnerable elevation presents itself.

So what would any architect do on leaving those two famous cafés at the intersection of the Boulevards Montparnasse and Raspail and within two blocks see this apartment house on the Rue Vavin, but hie himself back to the cafés once again and drink to the happy fulfillment of Babylon's hanging gardens! For here they are, rounding out at least six years with the flowers still growing, the white glazed tiles still glistening, and the occasional blue inserts

still sparkling! We do not know whether, or if ever, the concierge dry-cleans or wet-cleans the tile. Nor whether owner or tenant tends the gardens. But we do know that every time we go back to Paris the spotless tile and the flourishing greenery make us turn the corner and have a Benedictine or two on this very old idea done in a very new way.



MANY the time that a balcony has inspired a Romeo but seldom if ever has an ash-hoist inspired an architect. Yet behold this wonder accomplished in fact at 137bis, Boulevard Raspail, Paris. There was to be a balcony where the mesdames could discuss the made-moiselles, and where the mademoiselles could titter at the passing messieurs. Also, there was to be an Americanized ash-hoist which would enable the concierge to be as elegant as the



passing messieurs. The architect, being a democratic fellow with a Gallic sense of humor, made the designs of balcony and ash-hoist alike. Almost alike, to be sure, for one must not offend. The balcony, he is cast iron painted black, and the hoist cover, he is pierced sheet iron painted gray. Eh, voilà, there is unity, harmony, and fraternity—not to mention the saving in cost of designing!

Monday, July 25.—The National Association of Real Estate Boards says that a building boom is about ready to be touched off.

"Even under present pinched conditions of family income and consequent doubling up of families, 10 per cent of 358 cities surveyed in the United States and Canada report a shortage in homes.

"Seventy-six per cent of the cities reported a normal balance of supply and demand in private family homes, and only 14 per cent have an oversupply. Six per cent have a shortage of apartments and 66 per cent a balanced condition."

A. S. Douglass, who is chairman of the Detroit Building Congress Research Committee, finds that 44 per cent of the single houses in Detroit are more than seventeen years old, and 48 per cent of the two-family flats are of like age. Obviously the house built seventeen years ago is now decidedly below par in its equipment unless an unusual effort has been maintained constantly to keep it up to date. Unquestionably there is a huge potential market awaiting the first sign of re-established confidence to open it up.

Tuesday, July 26.—Arthur Holden keeps hammering away at the injustice and inequality of our methods of taxing land. A skyscraper goes up, and the assessors immediately raise the assessment not only on this particular piece of land, but on surrounding parcels, thus forcing the unnatural development to the limits of allowed density. The English system, which bases its tax rate on the use value of the land, has a less burdensome effect, and does not tend toward overdevelopment. Unquestionably we need more open spaces in our cities, but our present-day system shows no sympathy with these needs and desires.

Wednesday, July 27.—I was talking with a painter this morning who pointed out the curious situation in which the house-painting industry finds itself. In the old days when a painter mixed his own lead and oil, he was working with known factors and on surfaces—plaster for instance—of which he knew the composition and characteristics from long experience. Today he is working on patent plasters, the compositions of which are based on secret formulas, and he is working with paints made after other secret formulas. It is not particularly surprising, therefore, that he occasionally finds himself unable to explain certain results.

Friday, July 29.—Thomas Stapleton dropped in today to tell me that he and Leo Valke, who have been associated with Andrew J. Thomas for many years as chief designer and head draftsman respectively, are opening up their own offices.



The Editor's Diary



Monday, August 1.—Somebody is always trying to bait a painter, illustrator, or sculptor for taking undue liberties with his subject. Lee Lawrie put a beard on the Prophet Ezekiel for the Nebraska State Capitol. Some one in Lincoln, Neb., objects, quoting chapter and verse to show that Ezekiel was beardless: "And thou, son of man, take thee a sharp knife, take thee a barber's razor," reads the Scripture, "and cause it to pass upon thine head and upon thy beard." The Prophet Ezekiel, therefore, must have been beardless. To which Lee Lawrie laconically remarks: "Well it would appear that Ezekiel must have had a beard if he was ordered to cut it off."

Tuesday, August 2.—Professor Milton S. Osborne, of the University of Manitoba, was in today and I was delighted to hear that his graduating students, in the preparation of their theses for degrees, make full working drawings of the buildings they design. So far as I know there are only two architectural schools that do this—the University of Manitoba and the University of Minnesota—the others preferring to allow the student to walk out into the practice of architecture still treading the tenuous clouds of his own fancies, and without very much of an idea of what a working drawing looks like.

Wednesday, August 3.—Lunched with Harold Bottenheim, editor of *The American City*, and Benjamin C. Marsh, secretary of the People's Lobby, of Washington, discussing the difficulties that we face in carrying out the provisions of the new Emergency Relief and Construction Act of 1932. The Act has great possibilities in stimulating building and particularly for enabling the accomplishment of some real improvement in large-scale housing. The great stumbling-block is the money to be paid for the land. Of course, the more obvious speculative profits on the land are avoided

through the requirement of appraisal by the proposed State Commission of Housing and Planning, on which commission it is proposed to confer the power of eminent domain. Even with these safeguards, however, the goal of really low-cost housing will not be achieved without some radical revision of our conception of what land for this purpose should be made to pay as a return to its owner.

Friday, August 5.—Out most of the day photographing examples of marquises. Here is an architectural feature that, while appearing on some of the most recent work, seems to be giving way to some type of awning which can be erected or taken down quickly. As the marquis grew in its extent of projection, from a shallow shelter of glass and iron to a heavy projecting element covering the whole width of the sidewalk, it became a difficult element to design. Where the form still persists, it is being made very much more slender in its lines and lightness. Provision against damage to the glass by objects falling from the upper stories remains a difficult thing to achieve.

Saturday, August 6.—Austin Purves, Jr., who is directing the teaching of art in Cooper Union, is eliminating from the first-year general course the teaching of the technique of drawing. He is trying the experiment of allowing the students to find their own technical expression in their first year of art training. The scheme has not been attempted elsewhere except possibly in the art schools of Vienna.

Monday, August 8.—One meets more and more people these days who are doing sufficient thinking to realize that the way out of our economic morass lies somewhere between the widely separated paths of continued constriction of budgets on the one hand and a dole of artificial money on the other. Willard Chevalier, vice-president of the American Road Builders' Association, points out that our bill for all types of construction in this country amounted in 1926 to approximately nine billion dollars. At the beginning of the boom it rose to approximately ten billion dollars. In 1930 it fell to eight billion, and in 1931 to six billion. In recent normal years the average for public works has been three billion dollars. This, of course, includes State, county, and municipal works. Federal work never accounted for a very large part of the three billion, nor can it be expected to fill the whole gap now. Expansion of municipal, county, and State public works is necessary to touch off a resumption of the normal private building movement.

Wednesday, August 10.—Met Henry R. Shepley at the New York Hospital-

Cornell Medical College Association, Inc.—to give it its full and official title—which is just receiving its finishing touches. We spent a couple of hours walking over the plant, which combines, of course, the very latest technical developments of hospital plan and equipment with a freshness and vigor of architectural treatment which is as stimulating as a cold shower on a hot day. The building, I believe, is the largest brick structure ever erected, the brick being nearly white and varying in three shades—one, that used in the Chrysler Building; a second, that used in the Lefcourt National Building; and the third, that used in the Savoy Plaza, all in New York. I think I saw only one moulding on the outside of the enormous group, which depends for its effectiveness solely on texture and the inter-relation of its masses and its fenestration. Here is unquestionably an important milestone in the architectural progress of the twentieth century.



Friday, August 12.—I see that at the National Heating Association's twenty-third annual convention out in Pittsburgh, there was announced the development of a new principle as applied to air conditioning. A vacuum is created and water forced into this vacuum, where the release of pressure causes it to boil. The steam thereupon passes through coils, and, in condensing, reduces the temperature about these coils. The method, which was described by V. F. Day, of the Carrier Lyle Corporation, Newark, is still in its early stages of development.

Saturday, August 13.—A few days ago there were installed in the Princeton University Chapel the last of five stained glass windows by Charles J. Connick. Professor Albert M. Friend, of the Department of Art and Archaeology, at Princeton, collaborated with Mr. Connick in the selection of the window subjects, which represent Christian epics: Dante's "Divine Comedy," Milton's "Paradise Lost," Bunyan's "Pilgrim's Progress," the four Gospels of the New Testament, and Mallory's "Morte d'Arthur."

Monday, August 15.—News comes of the discovery by chicle hunters of a new Mayan city on the Yucatan peninsula. It has been called Calakmul, and flourished from 364 to 551. Its two largest pyramids are one hundred fifty feet high, and it is said by the Carnegie Institute to have monuments of a higher degree of culture than any other Mayan city ever found. The people erected a dated monument every five years.

Tuesday, August 16.—I see that they have been digging up some slate tombs at Grenoble dating from about 500 B.C. The graves were those of the Ligures, people well over six feet in height, who were clever enough builders to construct practically a hermetically sealed tomb—really a grave that was slate lined, the joints being tightly cemented. It is interesting evidence as to how long slate will last under ground.

Wednesday, August 17.—Lunched with Egerton Swartwout and was particularly interested in some of his difficulties in having properly executed by French workmen the battle monument at Mont Sec to commemorate the work of American forces in the St. Mihiel region. In spite of unusual care in detailing, using, of course, the metric system, the French workmen persisted in doing things in the way to which they were accustomed. One thing that rather startled him on a trip of inspection was to find the stone-cutters cutting his wreaths upside down. They insisted that the proper way for a wreath to be shown is with the loose ends at the bottom, scale drawings to the contrary notwithstanding.

Friday, August 19.—Through the generosity of Thomas Cochran, the Arc de Triomphe de Carrousel, in the Tuileries Garden, has been restored at a cost of approximately one million francs. The quadriga, which came originally from the Sun Temple at Corinth, was placed on the Arc in 1808. When Paris was invaded in 1815 after Waterloo, the quadriga was removed to Austria, and then to St. Mark's, Venice, where it now stands. Baron Bosio designed the replacement group in 1830 at the direction of Louis Philippe, and it was on this piece particularly that most of the restoration work was needed.

Saturday, August 20.—I hear that Frank Lloyd Wright is establishing an architectural school near his home, which will be called Taliesin Fellowship. I wish I were young enough to attend it, for Wright is an inspiring teacher. The story is that the students will first make a study of materials. They will quarry stone, hew timber, investigate the making of steel and glass. The teaching of design—or, let us put it, the acquisition of a feeling for design, will be accompanied by a growing familiarity with sculpture, painting, music. In the evenings the students will meet writers, musicians, scientists, and other artists who will visit the school. A group of seventy will enter upon this delightful sort of education when the school opens in October, and they will be called apprentices, not students. Each apprentice will be required to do three hours work daily on the grounds or on the farm. With Mr. Wright will be included three technical advisors trained in in-

dustry, three resident associates—a sculptor, a painter, and a musician—and a group of seven senior apprentices.

Monday, August 22.—Howard Scott and his group of engineers, known as Technocracy, have been doing their best to stem the tide of a false boom which they feel is being stimulated by an attitude of Couéism on the part of most of us, including government bureaus. Technocracy's survey shows that with the exception of one or two seasonal gains such as in textiles, boots and shoes, and coal, there has been no reversal of any downward trend curve of any industry. They point out abundant evidence of the fact that has been mentioned before in these columns—that it is taking the time and energy of fewer and fewer men to produce more and more staple products. What Scott and his group are trying to do is to warn us as a nation that this trend cannot continue without some radical changes in thinking and in the organization of our social and industrial activities.

Tuesday, August 23.—Attended the funeral of Harry Allen Jacobs in the chapel of Temple Emanu-El, which was well filled with a group in which his professional brethren predominated. He was a man with a curious mixture of shyness and an innate charm which made friends for him almost in spite of himself.



Walked down Fifth Avenue with Robert D. Kohn, talking of the marvellous opportunity presented to the profession by the recent Act providing this enormous credit for housing. Judging from brief indications, the profession as a whole seems not to have awakened to the possibilities that lie within our grasp. The problem of slum clearance, replacing obsolete tenements by modern shelter that will be built not as an architectural monument to some one, but as a practical solution of a great need, remains to be solved. We cannot sit in our offices and await industrial clients. If we do not go out and tackle this job, some one else will take it out of our hands, and that would mean that the profession of architecture has been relegated to a lower place in the nation's building efforts. The main difficulty seems to be to bring about a realization in the profession that this particular job is much more than a problem of plan, materials, prefabrication, large-scale operation, and similar activities traditionally accepted as part of the architect's function; there are other factors involved, factors with which we as a profession are largely unfamiliar: land values, the cost of capital,

public utilities, roads, marketing methods and costs, the choice between housing that is for rent and housing that is for sale, the necessity for bridging the gap between what accommodation can be furnished for a given rental as compared with what people insist upon having for that rental. Here are problems long considered outside the realm of architecture, but they are inherent in the job that we are facing at this moment.

Wednesday, August 24.—The Architects' Club of Chicago has done some good work in the study of rehabilitating blighted areas. Under the chairmanship of Henry K. Holsman a committee has printed a report which contains a lot of valuable information for those who hope to take advantage of the recently passed Emergency Relief and Construction Act of 1932. One recommendation of the committee, based on experience in Chicago, is the set-up of co-operative group apartment projects. The scheme is to operate each group as a trust estate, with a trust company as trustee, giving each owner a beneficial interest in the proceeds as evidenced by a trust certificate. The trustee signs a regular apartment lease with each owner; thus each tenant owner possesses two documents, each entirely separate from the other in law and equity. The dividends to each certificate holder are the same, but each tenant's rental depends upon the position, size, appointments, or other factors, of his particular apartment. The building is managed by an experienced operator with the advice of a small management committee. It will

be seen that the ownership is really not co-operative, since the owners do not co-operate as owners any more than an heir of an estate co-operates with other heirs. The separation of ownership from leases has many obvious advantages. The trustee can cancel any lease for cause. He cannot entail any owner's property interests, or interfere with the regular transfer of that interest to other parties, but he can refuse a lease to any owner for any reason in the interests of the preservation of the property, just as any private owner might do. This set-up as recommended by the Chicago committee has been thoroughly tested in various apartment houses designed by Holsman & Holsman. In the recent economic storm not one of the co-operative buildings operating under this plan has failed, or has shown any discernible element of failure. Dividends are assured through this scheme by budgeting the expense beforehand. The dividends in practice are deducted from the tenant's monthly rental payments.



Friday, August 26.—*The Nation* for August 24 takes a shot at "The Little Wonder House" which a New York department store has built and furnished within the store.

"From the outside one approaches a mediæval house of beams, plaster, and shingles. The shingles on the roof are 'hand-riven,' of all shapes and sizes, as if our age had never learned how to turn out uniform shingles by machine.

They are laid in crooked lines, higgledy-piggledy, as if carpentry had not yet learned to lay shingles in straight lines. The architect apparently would have preferred a thatch roof, as historically more correct, but these shingles, we are told, give the same 'delightful effect.' The house professes to be built of rough-hewn beams, as if straight, machine-cut beams were not obtainable, and as if we had never learned any better method of construction. The beams profess to be held together by wooden pegs which project an inch or so from the beam construction. . . . And why all this elaborate dishonesty, this extravagant forgery? So that the house might be 'picturesque,' so that it might be 'quaint,' so that its occupants might play at living in the fifteenth century. All they would need to make the masquerade complete would be fifteenth-century costumes.

"But inside—once they have got past the . . . dove-cote, the 'peasant' open fire-place with its great hood, the swinging crane for the kettle, 'the random-width oak-plank floor,' the alleged 'French provincial type' furniture—inside, the inhabitants can begin to play furiously at living in the twentieth century. . . . The kitchen has an electric stove, with electric clocks to regulate it automatically; it has an electric ice-chest, electric fans, electric toasters and waffle-irons, an electric mixer, a built-in electric dish-washing machine. And as you approach the kitchen door it swings open for you, automatically. In the rest of the house are, of course, not only electric lights, telephone, and radio, but air-cooling and conditioning units."

Architectural Education

REPRINTING TWO STATEMENTS THAT HAVE CREATED MUCH DISCUSSION

NOTICE TO STUDENTS AND CORRESPONDENTS

(Reprinted from *The Bulletin of the Beaux-Arts Institute of Design*, May, 1932)

IT would seem to be wise at this time to bring to the attention of the students, particularly in the work of the Beaux-Arts Institute of Design, and their instructors, as well, a growing feeling of conviction on the part of the Juries that the standard of design, as evidenced by the current exhibition, leaves much to be desired.

We are no doubt in a period of experiment and investigation. The men writing the programmes endeavor to make their problems interesting and stimulating. The Juries, finally, do their utmost to be sympathetic, patient and understanding. What lies between is the effort of the student and his instructor and we of the Juries can only judge results as we see them. We find a universal tendency to present so-called modern solutions in façade, and the plans suggest the same principle. What we

also find, to our annoyance (and it is said advisedly and firmly), is, that the bulk of the work is modern merely in the fact that forms supposed to be characteristic of the new architecture are shown with little understanding of the antecedents of these forms and with little conception of the real bases of modern design.

Let us face the facts squarely. If modern architecture, by which we mean rational interpretation of new problems, is to be good we will be just as careful to avoid repetition of unpleasant modernistic detail as the cast incongruities of

the Victorian Era. Modern architecture is not going to become a style based on Gropius or Taut; Wright or Corbusier. It will demand intelligent, clearly reasoned, solutions of plan—as ingenious as you like, but, above all things, simple, direct, and honest in the expression of the particular problem. Ultimately, the student will discover that these homely principles will assist him in actual practice.

The Jury discovers problems that show, only too clearly, a failure to grasp the essentials of the plan; its simple major requirements. It resents the tricks of plan indication that attempt to cover crudely studied solutions with florid and meaningless decoration on the plan itself. It particularly concerns itself with studies of the façades that prove, after many months of watching, that the student believes that the beauty

of classic architecture is entirely discarded and that arrangements of flat surfaces, rhomboids, rectangles, or what have you, brilliantly rendered in charcoal, may mislead the Jury into thinking that the student is producing architecture. I am not attempting to attack or protect modern architecture. It is quite sufficiently vigorous to take care of itself. What does seem to be vicious is the realization that the student, in ignoring the fine compositions, the understanding of great designers throughout history, of materials, the meaning of stone and metal, plaster and wood, decides calmly that by the mere discarding of all conventions he can produce something of value. It would be unfortunate indeed if those men whose education and training have given them some insight into the inspiring quality of the masters of the past, did not warn the students that they are on dangerous ground. To have the programmes demand classic architecture is possible; there would be a question of logic and reason in that. To permit the students, however, to continue the absurd versions of so-called modern work in the way they now insist is neither to their interest nor will the Juries be honest in assuming that a persistence of this attitude will lead the student to good architecture.

If good proportion, intelligent mass, consideration of the three dimensional block of the building is sacrificed for the trivial brilliancy of paper architecture, it may be time to push all students back to a study of classic work and forbid the experiments which are now being made. One's sympathy for modern design is shocked by the lack of serious realization of the fundamentals of good design and there is no style label to be affixed here. The façades of the armory problem, in particular, in spite of the few excellent projects, precipitated this reaction, and unless more attention is given to composition of the buildings, irrespective of their simplicity, steps must be taken to protect the student against what seems to be a vicious practice.

ELY JACQUES KAHN,
Director, Department of Architecture.

TO THE STUDENTS OF THE BEAUX-ARTS INSTITUTE OF DESIGN, ALL DEPARTMENTS

A NOTICE to you, taking my name in vain together with two other modern architects whom I respect, has been sent to me (Notice to Students and Correspondents, Architectural Department, School Year 1931-32, April 20, 1932).

If this circular is proper evidence of the quality of inspiration to which you are subject it may be time for you to help yourselves.

Reading between the lines of the lively

circular which contains a threat, evidently the Beaux Arts here, as in Paris, realizes that neither the old practices nor the old doctrines can be made to apply longer, except by force. The Beaux Arts, so it would seem, is ready to speak the language of the new thought in architecture. The circular bears witness. But why must the Beaux Arts leadership deny or betray modern architects before it can "come over" to modern architecture as gracefully as it thinks becoming to its dignity—or, say that it won't come over at all and the students will be "pushed back to classicism"?

And you are unreliably informed as to what modern architecture is. You are told that it is not going to become a style based upon Gropius, Wright, or Corbusier. It is true that much that passes for modern architecture is not organic because it is already contaminated by Beaux Arts standards of eclecticism. To the unfortunate young architects already so contaminated, I am a friendly enemy.

But architecture is "modern" and has a future only because these modern architects, from whom, I am sorry to say, the circular in question derives only language, are what they are and because they have done what they have done in the way they have done it. It is because of their work that the Beaux Arts is now ready to modify its programmes or "push" all of you back. But, I assure you, the principles familiar in practice to the modern architects against whom you are officially warned will be the principles you will be moved by and that you, too, will master if you do not betray your country as the "Beaux Arts" has betrayed Youth everywhere since the institution was born and will betray you if it can.

Unfortunately the Beaux Arts is important just because Beaux Arts training in architecture has been all the academic training Young America has had any chance to get.

But today there is no man able to think for himself who believes such training, or any training like it, can aid any young man to grow up in any circumstances as a creative architect. The very principles of an organic architecture which the Beaux Arts "views with alarm" and from which such new language as it tries to use—"the meaning of materials," etc.—is derived would blow their method and their practice away forever were they or their students able, really, to grasp the real meaning of that language.

When "in all history," for instance, has "the meaning of materials" or anything deeper than "fine composition" been found in academic circles until some of these men "whose work"—you are officially told—"modern architecture is not going to resemble" came along?

The simplest knowledge of simples, "the meaning of materials" in particular, would utterly destroy the Beaux Arts establishment. It has already gone far toward doing so because utter ignorance, in practice, of the nature of materials, modern methods, and modern architects is a sublime Beaux Arts characteristic.

"Composition" was the shrine of all Beaux Arts training. And it was such "understanding" as this working upon outmoded traditions that produced the "great designers" to whom the circular refers.

Composition is dead.

The silhouette of masonry mass over steel lives only as a feudal hangover. But, for you, creation still lives as the magna charta of your liberties in the "modern architecture," you are told your work should not resemble.

It is not only natural enough but it is inevitable that hypocrisy should attempt to flower as the result of the system of eclectic imitation not only fostered but featured by the institution known as the "Beaux Arts" and no fruit be the result.

Nor, perhaps, should fault be found with any ostrich for sticking its head in the sand. No ostrich is a lion.

But where, I ask you, are you going to learn the truth that—quoting the circular again—"good proportion, intelligent mass," "consideration of the three dimensional block of the building" are not at all fundamentals but as such are a senility no longer applying to youth in architecture. *These qualities are all mere by-products of good design. They are not "fundamentals."*

So, if you are all to be "pushed back" (the threat belongs to the circular) to the old reactions referred to as "the fundamentals of good design," as the Beaux Arts learned and refuses to forget them—then it seems to me proper time to hold out to such of you as are in love with architecture an opportunity to learn something of the principles that made the architecture of modern architects objectionable to the Beaux Arts; objectionable, chiefly, as a matter of self-preservation. The accompanying plan will explain to you what I mean by "opportunity."

Taliesin has already established a living tradition and has good reasons to know that youth everywhere is hungry for reality and is everywhere rocking an old boat no longer seaworthy. Even in the dock for repairs that old boat can no longer be made safe for youth.

Nothing modern architecture has to give the student can reach him by way of the eclecticism that captains and sails that old caravel.

However reformed, the "Beaux Arts" cannot forget and can never learn.

FRANK LLOYD WRIGHT
Taliesin, Spring Green, Wisconsin.

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OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES



Protection with Central Station Control Systems

ALTHOUGH the architect himself is neither a purchaser nor a consumer, he is a trustee whose decisions govern not only the expenditure of others' funds but the safeguarding, as far as humanly possible, of others' *future interests*. It isn't enough that the architect erect a beautiful building economically. His decisions influence also the economical operation of the building and the adequate protection of it from destructive forces. The responsibility is great—and the responsibility does not end when the keys are turned over. Five, or even ten years after, the architect may be faced with the responsibility for the failure of materials or systems.

Naturally, the architect, realizing this, trains himself to be cautious, hesitant, and exacting. It is not surprising that the interest of the architect today is centred on those things which assure him of the *reliability* of the materials, equipment, and systems he specifies. He knows that the responsibility for the failure of any part of his building—even after many years have elapsed—is laid at his feet. A specified system that fails is like a mole that undermines his reputation. Everything going into a building must be not only dependable, but as nearly fool-proof as modern ingenuity can make it.

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Automatic sprinkler systems are compulsory, in many instances. They have done much to reduce fire hazards. Insurance companies often allow substantial reductions where they are installed. But records prove that there are literally thousands of cases every year where, for one reason or another, sprinkler systems—through no inherent fault of their own—become totally or temporarily useless. Gate valves are closed—for repairs or by accident—

and are not opened again. Exposed water tanks freeze, air escapes from pressure tanks, water runs low in gravity tanks, steam for water pumps drops down to an inadequate supply. There are a score of situations that can prevent the proper operation of the best sprinkler system ever specified.

Many architects realize these dangers but few fully appreciate that there are very efficient safeguards against them. Every system of protection, upon which lives and property depend, should wherever possible be supervised by an independent and impartial organization which specializes in such work. A simple illustration of the value of outside (central station) supervision of sprinkler systems is the small blaze that, in itself, does little damage because a sprinkler head opens up and quickly puts it out. Every one has gone home . . . the sprinkler head is still open, pouring thirty gallons of water a minute into the building. An electrically supervised system, however, would flash a signal to the central station of the protection company and immediate steps would be taken to shut off the water and avoid further damage.

In the case of exposed water tanks, gate valves, pressure tanks, steam supply, air supply, etc., electrical devices installed on these vital parts of the sprinkler system flash warning signals that demand immediate steps be taken to correct any condition that is not normal. Subscribers for such systems have a direct private wire connection to the nearest central station of the protection company. The American District Telegraph Company is the largest central station organization and maintains one hundred and seven-

teen such offices between the east and west coasts. The radius of operation depends upon local conditions but there are many cases where a central station is protecting property fifty miles away.

There are many central station electrical protection services that architects may make use of to safeguard their clients' buildings. In addition to the supervision of automatic sprinklers and their water supply, there is night watchman supervisory service. This system not only keeps the watchman alert throughout the night by requiring him to signal the central station at periodic intervals, but it is a protection to the watchman himself. Unless he signals the central station within a definite time allowance, the protection company dispatches a guard to personally investigate his delinquency. There are thousands of cases every month where watchmen, for one reason or another, have been unable to perform their duties. The reasons run all the way from accident, death, holdup, and drunkenness to peaceful slumber. When a watchman is supervised by a central station system, his activities are under observation constantly. Should he be held up by burglars and forced to make his usual rounds at the point of a gun, he can signal for help without endangering his life. If the usual signal fails to register at the central station, an immediate investigation is made by the protection company. Local police assist when necessary.

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The advantages and economy of such protection systems affect the plans of the architect. Probably not so much his blueprints as his diagnosis of his client's need for adequate and perpetual property protection. When a building is destroyed or put out of commission

because it lacked adequate protection facilities, the architect cannot escape the backlash.

There are also hosts of industrial applications for central station supervisory services—for instance, the supervision of industrial and residential oil-burners. Stack temperatures are checked by simple electrical devices. A certain drop in temperature sends notice that the burner has failed to function. An overflow of oil is just as easily and promptly registered in the central station. Such signals are treated in a predetermined manner and such action taken as the case warrants. In most cases, a watchman or engineer has to be notified or a guard sent to the premises.



An interesting application of A. D. T. Central Station Service is the checking of room temperatures—day and night—in the plant of a New Jersey manufacturer of combustible materials. In case a certain dangerous temperature is reached, a local alarm is sounded as well as the usual central station alarm. Vat temperatures in many factories are being checked continuously by central stations, probably miles away. New applications are being made of this service almost daily.

A central station protective system which can be adapted to almost any kind of building, old or new, is an automatic fire alarm that actually feels fire and flashes an alarm to the central station and the nearest fire department without a moment's loss of time.

When a small fire started in Fraunces' Tavern in New York, that famous old heirloom of the eighteenth century was thrown into a turmoil. The door that once knew the hand of George Washington was ruthlessly thrown open and the quaint atmosphere was rudely shattered by the uninvited advent of burly firemen. The invasion was protested, but the firemen, unheeding, rushed to the floor above, battered through the age-old panels of an oak door to find flames giving birth to a conflagration that, left a few minutes longer, would have desecrated a symbol of sentiment that architecture and money could not replace.

The automatic fire alarm, recently installed, had detected the fire and flashed an alarm in less time than it takes to tell about it. A feature of this form of fire detection of special interest to the architect is the fact that it is an almost invisible system. A small copper tubing, about one-twelfth of an inch in diameter, is fastened to rafters or beading. Nothing interferes with the decorative scheme. More important, this system of fire detection keeps constant watch. It protects every part of the building at the same time. A fire is detected immediately and the alarm flashed to an A. D. T. Central Station and the fire department without waste of time, without excitement or indecision.

Architects should forever keep in mind the fact that fire takes an appalling yearly toll of American resources—equal to twice the cost of the Panama Canal. The installation of automatic sprinklers properly supervised, automatic fire detection systems, and the insistence that watchmen be both capable and constantly supervised by an impartial central station system, will not only lessen the fire hazard but will lessen

the responsibility of architects when fire does strike.

The central station idea is growing rapidly. It is being used to prevent loss of life and destruction of property by fire, accidents, theft, man failure, material failure, and the class of happenings known as "acts of God." If the safeguarding of premises is of sufficient importance to warrant the installation of expensive protective apparatus and the services of watchmen, the proportionately small extra cost for outside maintenance and supervision is a logical consideration. A staff mechanic may think that he is maintaining the automatic sprinkler system or the fire-alarm system in good order, but, like all mechanical and electrical devices, they must be supervised constantly to insure dependability. During the year 1931, A. D. T. central stations responded to 91,150 alarms indicating that sprinkler systems were temporarily disabled and rendered partially or totally useless in case of fire. When electrical devices connect the five or more vital functional parts of a sprinkler system to a central station, nothing can happen without immediate steps being taken to correct the faulty conditions.

In the case of watchmen, there is always the incentive for mutual accommodation and collusion. There is a constant—and innocent—contact among friends within every organization. These relations of intimacy lead to mutual help and shifting of duties. In case of trouble, watchmen and others protect each other against the consequences of their individual delinquencies and failures.



Central station supervision of protective apparatus and watchmen provides an impartial and unrelenting check on the whole protective scheme. It is the sole business of a central station organization to protect property through specialized supervision and maintenance services. Impartial operators and trained forces of guards stand ready for emergencies twenty-four hours every day. Central station supervisory service insures continuous safety. Certainly it is a tool of which the architect can make good use.



H. H. S.

Park Avenue, New York, on a winter afternoon

❖ 1926
DORMER WINDOWS
SHUTTERS AND BLINDS

❖ 1927
ENGLISH PANELLING
GEORGIAN STAIRWAYS
STONE MASONRY TEXTURES
ENGLISH CHIMNEYS
FANLIGHTS AND OVERDOORS
TEXTURES OF BRICKWORK
IRON RAILINGS
DOOR HARDWARE
PALLADIAN MOTIVES
GABLE ENDS
COLONIAL TOP-RAILINGS
CIRCULAR AND OVAL WINDOWS

❖ 1928
BUILT-IN BOOKCASES
CHIMNEY TOPS
DOOR HOODS
BAY WINDOWS
CUPOLAS
GARDEN GATES
STAIR ENDS
BALCONIES
GARDEN WALLS
ARCADES
PLASTER CEILINGS
CORNICES OF WOOD

❖ 1929
DOORWAY LIGHTING
ENGLISH FIREPLACES
GATE-POST TOPS
GARDEN STEPS
RAIN LEADER HEADS
GARDEN POOLS
QUOINS
INTERIOR PAVING
BELT COURSES
KEYSTONES
AIDS TO FENESTRATION
BALUSTRADES

❖ 1930
SPANDRELS
CHANCEL FURNITURE
BUSINESS BUILDING ENTRANCES
GARDEN SHELTERS
ELEVATOR DOORS
ENTRANCE PORCHES
PATIOS
TREILLAGE
FLAGPOLE HOLDERS
CASEMENT WINDOWS
FENCES OF WOOD
GOTHIC DOORWAYS

❖ 1931
BANKING-ROOM CHECK DESKS
SECOND-STORY PORCHES
TOWER CLOCKS
ALTARS
GARAGE DOORS
MAIL-CHUTE BOXES
WEATHER-VANES
BANK ENTRANCES
URNS
WINDOW GRILLES
CHINA CUPBOARDS
PARAPETS

❖ 1932
RADIATOR ENCLOSURES
INTERIOR CLOCKS
OUTSIDE STAIRWAYS
LEADED GLASS MEDALLIONS
EXTERIOR DOORS OF WOOD
METAL FENCES
HANGING SIGNS
WOOD CEILINGS

THE SEVENTY-SECOND IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS

ARCHITECTURE'S PORTFOLIO OF WALL SHEATHING



Subjects of Previous Portfolios Are Listed at Left

Forthcoming Portfolios will be devoted to the following subjects: French Stonework (November), Over-mantel Treatments (December), Bank Screens (January), Interior Doors (February), Metal Stair Railings (March), and Verandas (April). Photographs showing interesting examples under any of these headings will be welcomed by the Editor, though it should be noted that these respective issues are made up about six weeks in advance of publication date.



Old pine. Richard H. Dana, Jr.



Redwood. Clarence S. Stein

Oak. Leinart Palmé



Knotty pine. Philip L. Small, Inc.





Old English oak, sandblasted. Fruit & Brown



Pine. Frank J. Forster

Pine. Watson & Boaler

Knotty pine. Douglas Orr





Knotty pine. Lewis E. Welsh



Oak. Herman Brookman

Butternut. Holabird & Root



Cypress. Paul Runge





Knotty pine. Arthur E. Munson



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Knotty pine. Harry Creighton Ingalls

Old pine. Richard H. Dana, Jr.

Redwood. Willis Polk & Co.





Knotty pine. Lewis E. Welsh



Knotty Pine. R. Brognard Okie

Knotty pine. Frederick G. Frost

Pine. R. Brognard Okie





Pine



Chestnut. Nichols & Fritzsche, Inc.

Pine. Aymar Embury, II

Pine. Leslie I. Nichols





Pine. R. Brognard Okie



Pine. Richard H. Dana, Jr.

Pine. Cameron Clark

Pine. M. Constantine





Pine. Prentice Sanger



Pine. R. Brognard Okie

Pine. Frank J. Forster

Pine. Th. Engelhardt



*Knotty pine**Pine. Alfred G. Nelson**Oak. Bertram G. Goodhue Associates**Pine. Richard H. Dana, Jr.*



Pine. Roger H. Bullard



Pine. William W. Price

Pine. John Byers

Pine. Waldron Faulkner





Pine. C. M. Davidson



Painted pine. Edward S. Hewitt

Pine. H. M. Woolsey

Pine. Hentz, Adler & Schutze





Painted pine. H. M. Woolsey



Oak. Bertram G. Goodhue Associates

Mahogany. Roland E. Coate



Oak. Herman Brookman





Pine. Richard H. Dana, Jr.



Painted pine. Charles S. Keefe

Knotty pine. Roger H. Bullard



Redwood. Arthur E. Munson





Knotty pine. Arthur E. Munson



Pine. Waldron Faulkner

Clear pine. John Byers

Knotty pine. James Albro





Knotty pine. John Byers



Pine. Polhemus & Coffin

Cypress. Chester A. Patterson

Redwood. Henry H. Saylor





FARMHOUSES, VOGOGNA

*From the pencil drawing by
Malcolm P. Cameron*

◀ ARCHITECTURE ▶